

Remarks

Claims 1-11 are pending in the application. All claims stand rejected. By this paper, claim 1 is amended. Claims 2 and 8-11 are canceled. New claims 12-23 are added to provide claim coverage commensurate with the scope of the invention. Reconsideration of all pending claims herein is respectfully requested.

Claims 1-2, 4-8 and 10-11 were rejected under 35 U.S.C. 102(e) as being anticipated by Wong (U.S. Patent No. 6,693,456).

Claim 1 is currently amended in three places. First, it is amended in the preamble to clarify that it is directed to a bit-level permutation apparatus. Wong, by contrast, discloses applying Benes switch fabric to implement a compact interconnection network in a field programmable gate array. Second, claim 1 is amended to clarify that the input "signals" are bits (as distinguished, for example, from analog signals).

Third, claim 1 is amended to add the limitation: "wherein one or more of the plurality of switches has a **broadcast state** in which data input to the one of the first input terminal and the second input terminal is passed to both the first output terminal and the second output terminal." [emphasis added.]

This language is taken from claim 2, now canceled. With regard to claim 2, the Examiner had asserted that this limitation is disclosed in Wong. Applicant respectfully disagrees. This limitation – requiring a 2-input logic switch having a broadcast state – is not taught or suggested by Wong. The Examiner cited to Wong at column 5, line 63 to column 6, line 5. That text reads, *in toto*, as follows:

"The Benes network of FIG. 3D is not configured with only the hard-wired connections between the switch cells 20 illustrated. This network can potentially implement any permutation of signals on input terminals to output terminals. In order to configure the network to implement a specific routing, each switch cell 20 must be individually configured as either "pass" or "cross" mode described previously. The example of FIG. 3E shows the configuration of the network to implement an order reversal from the inputs to the outputs:"

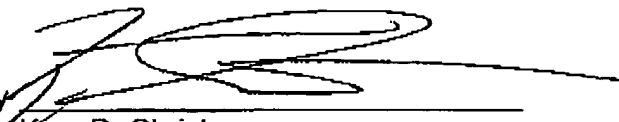
That description includes *pass mode* and *cross mode* cell configurations, but says nothing about a **broadcast mode** or state as taught by the present applicant. In fact, it teaches away by saying that each switch cell "*must* be individually configured as either "pass" or "cross" mode..." [emphasis added]. No other mode or state is recognized or suggested.

For these reasons, claim 1 and the claims that depend from it (claims 3-7) should now be allowed. Claims 8-11 are canceled.

New claims 12-23 are submitted. In general, they are directed to bit-level permutation applied to encryption, which is not taught or suggested by Wong. Accordingly, the applicant respectfully submits that this case is now in condition for allowance.

The Examiner is encouraged to telephone the undersigned if any issues remain.

Respectfully submitted,

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